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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,976	02/19/2002	Antonio J. Colmenarez	PHUS020001	6521

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

BALI, VIKKRAM

ART UNIT PAPER NUMBER

2623

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,976

Applicant(s)

COLMENAREZ ET AL.

Examiner

Vikkram Bali

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7 and 10-15 is/are rejected.
- 7) ☒ Claim(s) 6,8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/14/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

At first glance claim 1 appears to be non statutory under 35 USC 101, but after further analysis of the claim, examiner noted that claim 1 recites a practical application of a mathematical process "probability distribution" and the result is useful, concrete and tangible in the image analysis.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Saneyoshi et al (US 5410346).

With respect to claim 1, Saneyoshi discloses a method that retrieve the image (see figure 1, 10 the camera); and determining probability distribution corresponding to the pixels of the image, (see figure 17, the probability distribution of the pixel Ld in the image), using a model wherein some pixels in the image are dependent on other pixels, (see figure 17 the fxi and fyi are dependent to one other) as claimed.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, 5, 7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motion detection with non stationary background, by Ren et al.

With respect to claim 1, Ren discloses a method that retrieving an image comprising a plurality of pixels, (see section 2.1 first two lines); determining probability distribution corresponding to the pixels of the image, (see section 2.1 lines 1-8 and the equation 1), as claimed. However, he fails to explicitly disclose that some pixels in the image are modeled as being dependent on other pixels, as claimed. But, equation 1 in section 2.1 does includes the background and the intensity class of the object for each pixel i.e. "some of the pixels are modeled as being dependent on other pixels", therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to considered the probability distribution of Ren's system that considered both background and the moving objects intensity as the pixel dependency on the other pixel in the model "probability distribution" in order to come up with a method of determining the probability distribution of all the pixel in an image.

With respect to claim 2, Ren further discloses, the model comprises a term ... global state of a scene and a term ... pixel appearances ... of the scene, (see equation 1 in section 2.1, the equation includes the background “global state” and the intensity of the moving object “pixel appearances”) as claimed.

With respect to claim 3, Ren further discloses, the pixels ... considered to be independent ... of the scene, and the probability ... is modeled as a plurality of probabilities ... of the image, (see equation 1, and page 79 column 2 lines 1-13, the probability of the moving object is done for all the pixels “probability ... is modeled as a plurality of probabilities ... of the image”) as claimed.

With respect to claim 4, Ren further discloses providing a training image to the model, determining the parameters... for a predetermined number of ... images, (see lines 4-7, the prior probability is learnt for number of frames), as claimed.

With respect to claim 5, Ren discloses a method determining for each ... probability, (see section 2.1 equation 1, and lines 1-8 of col. 1 on page 79); assigning, for ... foreground when the pixel ... probability, (see section 2.2 col. 1 of page 80 lines 15-18 if it satisfies Eq. (5) and (6) simultaneously ... other wise it belongs to foreground), as claimed. However, he fails to explicitly disclose determining a global state ... image comprising a plurality of pixels, as claimed. But, in section 2 Ren does model the distribution of the intensity of each pixel, therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to simply consider the distribution of the each pixel of the image as the “global state ... probability ... of the image”, in order to provide a method for determining the foreground in the image.

With respect to claim 7, Ren further discloses, step of determining ... associated with a camera view, (see section 3, lines 1-4, images taken using the hand held camera) as claimed.

With respect to claim 10, Ren further discloses, creating segmented image ... segmented image comprising foreground and the background... foreground pixels are represented one values and the background pixels are represented as another value, (see section 2.2, page 80, col. 1, the image is segmented into the background or the foreground and the pixels values of both are different to each other, lines 15-18 states that if it satisfies Eq. (5) and (6) simultaneously, it would belong to background class ... other wise it belongs to foreground) as claimed.

With respect to claim 11, the likelihood probability of the ... according to a probability model, (see section 2.1 for description and the equation 1 for the model) as claimed.

Claims 12 and 13 are rejected for the same reasons as set for the in the rejection of claims 2 and 3, because claims 12 and 13 are claiming similar subject matter as claims 2 and 3.

Claims 14 and 15 are rejected for the same reasons as set for the in the rejection of claim 5, because claims 14 and 15 are claiming computer system for the subject matter as claimed in claim 5.

***Allowable Subject Matter***

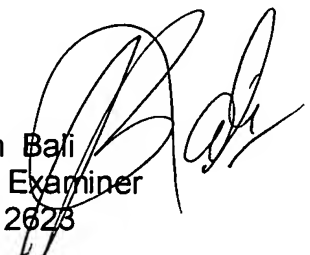
6. Claims 6 and 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 571.272.7415. The examiner can normally be reached on 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571.272.7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vikkram Bali  
Primary Examiner  
Art Unit 2623



vb  
March 8, 2006